WHAT IS CLAIMED IS:

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- A high frequency heating apparatus for heating a thing to be heated, comprising:
 - a high frequency generating portion;
- 5 a heating chamber for accommodating the thing to be heated;
 - a steam supply portion for supplying steam into and serving to supply at least one of a high frequency and steam into the heating chamber; and
- a partition plate which serves to mount the thing to be heated thereon and is provided to be upward removable apart from a bottom face of the heating chamber at a predetermined interval, thereby dividing a space in the heating chamber,

wherein the steam is supplied into an upper space 15 positioned above the partition plate.

- 2. The high frequency heating apparatus according to claim 1, wherein the steam supply portion includes a steam generating portion in a space formed under the partition plate in the heating chamber, and is constituted to guide steam generated in the steam generating portion to the upper space of the heating chamber through an inner part of the heating chamber.
 - 3. The high frequency heating apparatus according to

claim 2, wherein a gap is provided between a peripheral edge of the partition plate and a side wall of the heating chamber, and the steam generated in the steam generating portion passes through a side wall of the heating chamber and is guided to the upper space of the heating chamber through the gap.

- 4. The high frequency heating apparatus according to claim 3, wherein the partition plate has a through hole on a peripheral part, and the steam generated in the steam generating portion is guided to the upper space of the heating chamber via the through hole.
- 5. The high frequency heating apparatus according to claim 1, wherein the partition plate includes a high frequency heating member.
 - 6. The high frequency heating apparatus according to claim 1, wherein the partition plate includes a high frequency shielding unit.

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- 7. The high frequency heating apparatus according to claim 6, wherein the high frequency shielding unit includes a metal plate.
 - 8. The high frequency heating apparatus according to

- claim 1, further comprising preheating means for raising an atmospheric temperature in the heating chamber.
- 9. The high frequency heating apparatus according to claim 8, wherein the preheating means includes an upper heater provided in an upper part of the heating chamber.
 - 10. The high frequency heating apparatus according to claim 8, wherein the preheating means includes a high frequency heating member provided on the partition plate.

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- 11. The high frequency heating apparatus according to claim 1, wherein steam delivery means has a steam delivery path for guiding generated steam from an inner part of the heating chamber to an outside of the heating chamber, thereby introducing the steam into the heating chamber again.
- 12. The high frequency heating apparatus according to claim 1, wherein the partition plate is engaged with an engaging portion provided in a plurality of height positions on an internal wall surface of the heating chamber.
- 13. The high frequency heating apparatus according to claim 2, wherein the steam generating portion is provided along a wall surface on a back side of a bottom face of the heating

chamber.

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- 14. The high frequency heating apparatus according to claim 1, wherein the steam supply portion is constituted in such a manner that the steam directly hits upon the thing to be heated.
 - 15. The high frequency heating apparatus according to claim 1, further comprising high frequency distributing means for distributing and supplying a high frequency into the heating chamber.
 - 16. The high frequency heating apparatus according to claim 8, further comprising a control portion for controlling the high frequency generating portion, the steam supply portion and the preheating means,

the control portion being constituted to execute, in this order, a preheating step of heating the heating chamber by heat generation of the preheating means and a main heating step of supplying at least one of a high frequency generated from the high frequency generating portion and steam supplied from the steam supply portion to carry out a heating process over the thing to be heated.

17. The high frequency heating apparatus according to25 claim 8, further comprising a control portion for controlling

the high frequency generating portion, the steam supply portion and the preheating means,

the control portion having an interrupt processing function for supplying steam from the steam supply portion into the heating chamber for a predetermined time while the thing to be heated is heated.

18. The high frequency heating apparatus according to claim 17, further comprising a steam supply switch for executing10 the interrupt processing in an optional timing.